IN THE CLAIMS:

1. (Currently Amended) A line light irradiation device for use in product inspection comprising:

multiple light emitting parts each of which is provided with an optical fiber band and a columnar lens wherein the optical fiber band comprises a light irradiating part formed by arranging light leading out end portions of multiple optical fibers in a straight line or in multiple straight lines and a binding part formed by binding light introducing end portions of the optical fibers and portions of the multiple optical fibers between the light irradiating part and the binding part are formed as a sheet form and the columnar lens is arranged to extend along a direction of the straight line in front of the light irradiating part in pairs, and that irradiate line light that converges into the straight line; and

multiple light sources that introduce light into the multiple optical fibers; and

a holding body that is arranged to face to an object on which the straight line light is to be irradiated, on which a monitoring bore is arranged to penetrate in order to monitor the object, the holding body holds the light emitting parts so that each optical axis of the line light irradiated from each of the light emitting parts crosses on a predetermined straight line, wherein

the light emitting parts are of a same shape and predetermined lengths of the multiple optical fibers of the optical fiber band are made to be different so that the binding part is located to deviate to either one of two directions with respect to a center line of the light irradiating part and two identical optical fiber bands are mounted with their front and back sides turned upside down in the holding body so that the location of each adjacent binding part is different and the multiple light emitting parts are arranged serially along the above mentioned

direction of the straight line and the multiple light sources are arranged along the above mentioned direction of the straight line on the holding body and

wherein each light emitting part is arranged on the holding body so that the optical axis of the line light irradiated from each light emitting part is arranged radially viewed from the above-mentioned direction of the line.

2. (Cancelled)

3. (Previously Presented) The line light irradiation device described in claim 1, wherein the columnar lens is arranged generally on a straight line viewed from the above-mentioned direction of the line.

4. (Previously Presented) The line light irradiation device described in claim 1, wherein the light irradiating part further comprises a pair of pinching plates and the pinching plates hold the light leading out end portions of the multiple optical fibers by pinching them between the pair of pinching plates.

5.-6. (Cancelled)

7. (Previously Presented) The line light irradiation device described in claim 1, wherein the light source that introduces light into the optical fibers is a power LED that continuously flows current greater than or equal to 200mA.

8. (Previously Presented) The line light irradiation device described in claim 1, wherein a distance between the light irradiating part and the columnar lens is adjustable.

9. (Previously Presented) The line light irradiation device described in claim 1, wherein the light emitting part is rotatable about a rotational axis that is parallel to the direction of the straight line and the rotational angle at a fixed position.

10. (Cancelled)

11. (Previously Presented) The line light irradiation device described in claim 1, wherein each length of the light emitting part is identical.

12. (Previously Presented) The line light irradiation device described in claim 1, wherein a light source is arranged for each of the light irradiating parts individually.

13. (Currently Amended) A line light irradiation device comprising:

multiple light sources;

multiple light emitting parts, each of which is provided with a light irradiating part where multiple optical fibers with light introducing end portions are bundled into a substantial cylindrical form and aligned with the multiple light sources, and arranged in a line with light leading out end portions of the respective multiple optical fibers for forming a straight line of a predetermined width, and portions of the multiple optical fibers between the light introducing end portions and the light leading out portions are formed as a sheet form, the multiple light emitting parts are arranged serially along the above mentioned direction of the straight line, and each of the multiple light emitting parts is arranged on the holding body so that the optical axis of the line light irradiated from each light emitting part is arranged radially viewed from the above-mentioned direction of the line;

a plurality of columnar lens, each arranged to extend along a direction of a respective line in front of each of the light irradiating parts, and to converge light onto the straight line;

a holding body that is arranged to align with an object on which the line light is to be irradiated, including a monitoring bore arranged to enable a monitoring of the object, the holding body holds the light emitting parts so that each optical axis of light irradiated from each of the light emitting parts crosses at a predetermined straight line, and

the multiple light emitting parts are of a same shape, and

binding parts that are formed by binding each of the respective light introducing end portions of the optical fibers in the substantially cylindrical form, wherein

each length of the optical fibers of all or a part of the optical fibers are different so that the binding part is located to deviate to either one of two directions in a plane view with respect to a center line of the light irradiating part and the respective adjacent binding parts are configured to alternate in deviation to enable adjacent optical fibers to spread into linear arrays that are turned upside down from each other to provide a stacked compact configuration, and

the multiple light sources are arranged along the direction of the straight line on the holding body.

14. (Previously Presented) The line light irradiation device described in claim 13 wherein the light sources are a plurality of light emitting diodes.

15. (Cancelled)

16. (Previously Presented) The line light irradiation device described in claim 13 further includes a cylindrical rod lens aligned with each light emitting end of the optical fiber of each of the multiple light emitting parts to form the line of light on the predetermined surface.

17. (Previously Presented) The line light irradiation device described in claim 13 where the light source is a plurality of light emitting diodes.

18. (Previously Presented) The line light irradiation device of claim 13 where the holding body has a rectangular body with a plurality of separate light sources, one light source for each multiple light emitting part, at least two multiple light emitting parts are connected to opposite ends of the rectangular body and the light leading out end portions are positioned to extend parallel to the respective ends of the rectangular body.

19. (Previously Presented) The line light irradiation device of claim 18 wherein the holding body includes a bracket member mounting at least one of the binding parts, the bracket member is pivotally mounted in the holding body to enable a rotational movement of the mounted binding part to move the line of light of the mounted binding part from a position exterior of the rectangular body.

20.-22. (Cancelled)

23. (Previously Presented) The line light irradiation device of claim 1, wherein the multiple light emitting parts are modular components that can individually be added or removed to adjust the total operative length of the line light irradiated from the line light irradiation device.